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THE GAMBIA.



REPORT ON THE MEDICAL AND HEALTH SERVICES
FOR THE YEAR 1944.



BATHURST
PRINTED BY THE GOVERNMENT PRINTER,
1945.

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REPORT ON THE MEDICAL AND HEALTH SERVICES FOR THE YEAR 1944.

I. ADMINISTRATION.

A. STAFF.

The year was marked by numerous staff changes, although apart from the cadre of Sanitary Superintendents, the establishment of European Officers was well maintained.

The following changes were recorded:—

Dr. L. H. Thomas, acting Senior Medical Officer left the Colony on leave in April 1944, and was later invalided from the service.

Dr. C. W. F. Mackay arrived on secondment and promotion from Nigeria in July 1944, the post of Senior Medical Officer having been performed in the interim, in conjunction with charge of the Victoria Hospital, by Dr. Clayton Mitchell.

Dr. Clayton Mitchell, Dr. Green, and Dr. Horn were all on duty throughout the year. (The two first named have since left the Colony, Dr. Clayton Mitchell on retiral, and Dr. Green on leave and transfer to Nigeria.)

Dr. Eddy acted as Medical Officer of Health from 14th June 1943 to 14th September 1944, when Dr. Minett, Medical Officer of Health returned from sick leave and resumed duty, Dr. Eddy simultaneously proceeding on leave.

Dr. Jones, African Medical Officer was granted leave during the year but remained in the Colony.

The appointment of Dr. Bright-Richards, African Medical Officer was terminated on the grounds of general inefficiency with effect from 27th December 1944.

Mr. Snell, Senior Sanitary Superintendent died while on leave in Cape Town in April 1944. Mr. Archibald, seconded from Nigeria, remained throughout the year and Mr. Walton proceeded on leave. For the major part of the year only one Sanitary Superintendent was resident.

Miss Walker, on transfer and promotion from Nigeria, assumed duty in August 1944 as Senior Nursing Sister, and was given the local title of Matron.

Miss Matthew, Sister-Tutor, proceeded on leave in July 1943 and resumed duty on 16th March 1944. (Now on leave and transfer)

Mrs. Berry, assumed duty on 23rd June 1944 on appointment as temporary Sister by the Colonial Office, and has been posted in-charge of the Maternity Hospital. (Retiring shortly).

Miss Claydon proceeded on leave on 28th March 1944 and was subsequently transferred to the Gold Coast.

Mrs. Eddy, a local temporary appointment, relinquished duty in September 1944, and Mrs. Brough, a similar appointment, in December 1944.

Miss Cruickshank was resident throughout the year, for part of the time acting as Senior Sister.

2. The cordial relationship between the department and the medical services of H. M. Forces continued. In particular we are indebted to them for their valuable and extensive co-operation in anti-mosquito control measures. The continued assistance of Army specialists in clinical work of many kinds has also been greatly appreciated.

B. LEGISLATION.

List of Ordinances, Regulations, etc., affecting Public Health enacted during the year 1944.

Serial. No.	Date.	Short Title.	Provisions.
Ordinances			
9	15.5.44.	The Yellow Fever (Amendment) Ordinance 1944.	Amends Yellow Fever Ordinance 1942, by substitution of 4 years for 2 years for validity of inoculation certificates.
16	15.11.44.	Treatment of Diseases Ordinance 1944.	Provides for compulsory treatment of gonorrhœa, soft chancre, sleeping sickness, syphilis and yaws.
Regulations			
4	3.2.44.	Made under Public Health Ordinance 1935. Control of Animals (Kombo St. Mary) Regulations 1944.	Prohibits keeping of certain animals without written permission of Health Officer.
7	20.3.44.	Made under Quarantine Ordinance 1932. Quarantine (Aerial Navigation) (Amendment) Regulations 1944.	Substitution of 4 years for 2 years in relation to immunity period of Yellow Fever.
22	28.12.44.	Made under Public Health Ordinance 1935. Market and Slaughter House (Amendment) Regulations 1944.	Substitutes new stall and allotment fees in Bathurst Market.
23	11.10.44.	Made under Public Health Ordinance 1935. Public (Excavation) Regulations 1944.	Prohibits making of borrow pits, cess-pits etc., without permission.
Orders in Council			
9	11.7.44.	Notification under Druggists Ordinance 1894.	Adds to schedule B of Ordinance the Sulphonamide drugs.

C. FINANCE.

Medical and Health Services.

	Estimated. £	Actual. £ s. d.	Increase. £ s. d.	Decrease. £ s. d.
Revenue	6,460	4,911 19 8	—	1,548 0 4
Expenditure	60,080	61,731 16 4	1,651 16 4	—

Miscellaneous Services.

	Estimated. £	Actual. £	Increase. £	Decrease. £
Contributions to Medical Associations and School	180	205	25	—

Colony.

	Estimated. £	Actual. £ s. d.
Total Revenue	370,000	523,909 7 10
Total Expenditure	363,513	526,023 0 5

II. PUBLIC HEALTH.

A. GENERAL REMARKS.

3. Hospital and Dispensary out-patient cases showed a fall from 1943, which can be taken as due to more accurate statistical computation. Hospital admissions again maintained the usual yearly increase. Total numbers treated remain severely limited by the very insufficient Hospital and Dispensary provision of the Colony and Protectorate, an increase of which is now principally hindered by the acute shortage of trained African Staff.

The number of deaths in relation to hospital admissions continues to reflect the late stages at which too many patients are first seen, and the situation is not likely to improve markedly in the absence of greatly increased treatment facilities in the Protectorate, and of better communications. Needless to say both problems are receiving attention.

4. The figures for the past two years are as follows:—

	1943.		1944.	
	Cases.	Deaths.	Cases.	Deaths.
Hospital Inpatients ...	1,560	140	1,995	178

	1943.		1944.	
	Cases.	Deaths.	Cases.	Deaths.
Hospital Outpatients	55,480	—	37,342	2
Dispensary Outpatients (including B w i a m Circuit)	35,186	—	33,642	—
Hospital Major Opera- tions	501	11	435	12
Hospital Minor Opera- tions	290	—	526	—

5. There were no unusual variations in the disease totals of the groups described. Disease of the digestive system headed the list (Appendix A), followed by infectious and parasitic diseases, and diseases of the conglomerate group “Skin and cellular tissues”. The proportion of the various groups described remain fairly constant whether diagnosed by qualified practitioners in Hospitals or by subordinate staff in dispensaries, although as might be expected “Other Diseases” show an increase in the latter. Tetanus remains unduly prevalent in the Bathurst area.

6. *Medical Stores.* The Medical Department on behalf of Government remains the sole importer of all drugs and medical supplies under the bulk purchase system, with the exception of certain scheduled items and patent medicines.

7. Drugs, dressings, and equipment were available in satisfactory quantities in all essential categories, although unavoidable delays in the receipt of medical supplies has sometimes complicated the picture.

8. Mepacrine is increasingly used in place of quinine, although with care stocks of the latter should last for some years. As with most new drugs the efficiency of mepacrine in the treatment of malaria tends to be overrated in some quarters. It is something short of being 100% efficient either as a curative or suppressive measure, and quinine must still retain a high value in our armamentarium.

B.—STAFF ORGANISATION AND TRAINING.

9. The acute African staff shortage experienced has already received mention. The position is doubtly unfortunate at a time when Colonial Development funds are within reach to remedy the Colony's heritage of poverty of medical and health facilities. Drastic plans are being formulated to ensure as far as possible that the Gambia does not miss its much needed share of the present opportunity. Conditions of service, including training, grading, nomenclature, and remuneration are all under review.

10. The temporary residential Hostel for female trainees referred to in last year's report encountered unforeseeable difficulties, and after a brief existence was closed down. The principle of providing such an institution is not discarded however. On the contrary it is thought it should have a particular value in this Colony, and it is intended to provide an up-to-date permanent Hostel as part of the new Victoria Hospital unit in Bathurst, further details of which will be published from time to time in the yearly supplements to the published Development and Welfare plans of the Colony.

C.—LUNACY.

11. In the absence of suitable facilities locally, many of our lunatics were sent to the Kissy (Freetown) asylum, before the war. Fortunately the numbers requiring such transfer have never been large, and with the imposition of shipping restrictions the system had to be suspended. New male and female accommodation has now been provided in Bathurst, on a small scale, as a temporary measure. A large percentage (44%) of the inmates are found to be cases of sleeping sickness in the late stage, and the numbers (80%) who regain sanity after appropriate treatment is highly gratifying.

D. GENERAL DISEASES.

12. Some comments are made in paragraph 5. Despite the incidence of malaria it is pleasant to record that no cases of blackwater fever were observed, neither was yellow fever diagnosed. There appears to exist some lack of uniformity in the different branches of the services, and in civil Governments, as to the criteria for a diagnosis of malaria. In consequence comparison may be of little value. It is suggested that where not already practised a diagnosis of malaria should imply the finding of the parasite, and for all others the qualified description "Clinical Malaria" should be employed. The term "Malaria—unclassified" should be reserved for cases in which unclassifiable parasites are found.

13. *Trypanosomiasis*. After malaria this remains our chief disease problem since the time effective yellow fever protection became available. With the exception of the Island of St. Mary it is prevalent in all parts of the country, and in the barrierless surrounding French and Portugese territories. It is now recognised that long-continued endemicity has resulted in a stage of

quiescence in most infected subjects. The majority either undergo spontaneous cure or are unaware of the condition. When conveniently available however, treatment is both acceptable and very effective. While the term "immunity" is scarcely applicable, it is apparent that a very high degree of tolerance has been achieved, probably broken down by the addition of inter-current disease or other lowering circumstance. In thus commenting it must be added that it has not so far been possible to estimate infantile mortality from this cause.

14. *Venereal Diseases.* As elsewhere this scourge is widely prevalent and special powers to enable free compulsory treatment to be given will be introduced in 1945. The laws will be entitled the Treatment of Diseases Ordinance and will also offer free treatment of yaws and sleeping sickness. In the first instance it is proposed to apply its provisions to the Island of St. Mary only, (which includes Bathurst).

15. *Leprosy.* A brief survey by Dr. Wilson Ræ in 1926 indicated an estimated incidence in the region of at least 1.4 per mille. If the total population of the country at that time is accepted as 201,301 (no reliable census figures are available), the number of cases of all kinds would be of the order of 300. There is no record of any subsequent survey but the available evidence indicates that the present total is very much higher. It is intended to make a fresh "sample" survey in 1945. At present there are three small special treatment centres, at Bathurst, Bwiam, and Allatento near Bansang, jointly caring for some 35 patients mostly in the later stages of the disease. Considerations of finance have hitherto prevented any major effort to combat leprosy but with the new outlook our position is under review, particularly in relation to current Nigerian plans.

E.—HEALTH CENTRES AND DISPENSARIES.

16. African staff shortage again prevented expansion in 1944, but now that the recruitment position shows signs of improvement, plans are being made to increase the numbers of these units as soon as trained staff can be made available. As with Hospital and Clinic statistics, the method of classification and computation of work performed has been found faulty, and the apparent decrease in cases treated is due solely to correction in order to obtain uniformity with the procedure elsewhere. It is hoped to provide fuller statistics in future.

III. VITAL STATISTICS.

17. The births and deaths of non-natives are compulsorily registrable in the whole of the Gambia, but compulsory registration of the total population is applied to the Island of St. Mary and MacCarthy Island only. Endeavour is also made to introduce non-compulsory registration at certain larger centres in the Protectorate. In Bathurst compulsory registration has been in force since 1845.

18. A census taken in Bathurst in November 1944 showed remarkable results. Although it was known that the previous 1931 census total of 14,370 had greatly increased, few anticipated its actual extent. The population was found to be 21,152, composed of 11,574 males and 9,576 females. Of this

total 15,866 were Mohammedans, 4,995 Christians, and 291 Pagans. 12,586 were classed as illiterate, 4,525 were literate in English, and 4,641 in Arabic. As regards origin, 4,479 had come from the Protectorate, and 5,696 were non-Gambians. Previous census results were 1911—7,700; 1921—9,227; and 1931—14,370.

19. The 1943 and 1944 data are compared:—

Vital Statistics for Bathurst—				1943.	1944.
Population	...	...	...	14,900 (estimated)	21,152
Births (live)	...	...	...	539	592
Total Deaths	...	...	...	533	423
Total Still Births	...	...	...	70	73
Deaths under 1 year	...	...	...	112 (revised figure)	77
Birth Rate per 1,000 population				40.87	27.98
Death Rate per 1,000 population				35.77	19.99
Infant Mortality Rate per 1,000					
live births	...	...	...	176.25 (revised figure)	130.06
Still Birth Rate per 1,000					
total births	...	...	...	129.8	123.3

20. The vital statistics of the Gambia reviewed over the last ten years reveal certain discrepancies. Some of these may be due to errors of calculation. The Colonial Registrar has expressed the opinion that the registration of deaths is about 100% accurate. The accuracy of birth registration is probably about 80% only, though this figure is probably increasing as education increases. Minor discrepancies occur since some births are still registered as much as sixteen years later in order to obtain the birth certificate required before entry to school. The resident population figure has varied beyond all expectation, the census at the end of 1944 on which the 1944 vital statistics are based showing over 21,000 population in Bathurst whilst the estimated population was only 14,900 in 1943. This means that the Birth and Death Rates figures for 1943 and 1944 appear highly improbable at first sight, dropping from 40.87 and 35.77 in 1943, to 27.98 and 19.99 in 1944 respectively. As European medicine becomes more popular we would expect an apparent increase in the birth rate from mothers coming into Bathurst for their confinements. To balance this however there is the custom of some tribes whereby the wife returns to her own home for the birth. Registration in the Protectorate is as yet in its infancy and no reliance can be placed on its figures. It is however spreading, and slowly but surely increasing in accuracy. To summarise therefore the vital statistics for Bathurst alone in the Colony can be accepted as of value at present. Of these figures the number of deaths may be taken as accurate enough for most purposes, but the figures for births as being too low.

21. The implications of the unexpectedly high population are many, but first and foremost, they give added justification, if such is needed, for the proposal to provide an expansion area in the adjacent Kombo area. Bathurst gave over some 32 acres of its residential space to provide for the needs of a seaplane based, in 1941 and 1942, thus reducing the inhabitable area by some 8%, and further demands for a similar purpose are not improbable.

IV. HYGIENE AND SANITATION.

A. PREVENTIVE MEASURES.

(i) Mosquito and other Insect-borne Diseases.

(a) *Malaria.*

22. Recent trends stress the value of suppressive drugs for the native infant and young child while they are building up a natural racial resistance. The susceptibility of this group may be gauged by Smith's work in Lagos, published in Trans. R. Soc. Trop. Med. Hyg. Vol. XXXVI No. 5. In a review of the results of 500 post-mortems in Lagos on children up to three years of age, he estimated 14.4% of the deaths were due to malaria. The same article quotes Whitbourne, (working in a different endemic area), who estimated 8 to 10% of infantile mortality was due to the same cause. There seems little doubt therefore that in what otherwise might be regarded as an immunological interference, the use of suppressive drugs is well warranted, provided the suppressive policy is maintained up to school age when extra-familial observation would come into operation.

23. As recommended by Professor Blacklock on his last visit to West Africa, the Anti-malarial Board has been replaced by a more realistically named Anti-mosquito Board of wider membership. In order to give it a useful start and in view of the number of laymen who will serve as members, a summary of the present mosquito problem in the Gambia has been compiled, and will shortly be published.

24. Close co-operation continued throughout the year with the Royal Air Force who took over control of a further area of Bathurst, and with the Army who undertook and carried through extensive and intensified measures in a different district. More recently supplies of D.D.T. have been made available to the Services but it is too early yet to record results.

25. The Health Service has also increased its activity and apart from increased control, has now accumulated much additional information towards the time, it is hoped not far-distant, when various major control measures long contemplated will commence. Our hands should be greatly strengthened by the recent appointment of a Government entomologist, an asset not previously enjoyed.

(b) *Yellow Fever.*

26. No cases were reported. In Bathurst the Aedes index over the year averaged .15%, in contrast with indices of up to 50% not so many years ago.

27. Pursuing the object of inoculating all of the Bathurst population with vaccine virus, a total of 5,820 persons were dealt with during the year, but the shifting population is likely to defeat complete success of the project.

(ii) Epidemic Diseases.

(a) *Smallpox.*

28. There was a minor outbreak of smallpox in Bathurst and the Protectorate which lasted from March to May. The following cases were reported:—

Bathurst	...	...	...	...	...	51
Kombo St. Mary	...	...	...	...	...	9
MacCarthy Island	...	...	...	...	...	22
Upper River	...	...	...	...	...	89

7,959 vaccinations were given in Bathurst during the year and 15,157 in the Protectorate.

(b) *Cerebro-spinal fever.*

29. Minor outbreaks occurred in villages in MacCarthy Island and Upper River Divisions.

(c) *Trypanosomiasis.*

30. A total of 1,567 cases were treated with twelve deaths, the latter recorded in late cases admitted to Hospital or Asylum.

31. It is hoped to complete a summary and appreciation of our present local knowledge before the arrival of Professor Davey or of Dr. Nash. Both gentlemen have been appointed by the Colonial Office, the former to advise on the institution of the West African Research centre, and of its activities, and the latter as "Fact-finding" officer for West Africa with particular reference to tsetse control. In the meantime for various reasons, including ascertainment of the role of D.D.T. in control measures, the major campaign described in Gambia Development and Welfare plans will be postponed.

(d) *Yaws.*

32. 3,071 cases of this prevalent disease were treated. Any plans for mass treatment of this and other diseases are affected by the even greater appreciation of benefit by natives of neighbouring colonies, a contingency presenting insuperable problems when all speak the same languages and both fellow-feeling and kinship persist despite political boundaries.

(e) Plague.

33. No cases have been reported although the unusually heavy annual outbreak in French Senegal caused apprehension.

*(iii) Other Diseases.**(a) Tuberculosis.*

34. 351 cases were noted, and 13 deaths were recorded in hospital. It is probable that the incidence compares with the increasing numbers reported from other Colonies.

(b) Pneumonia.

35. 142 cases were treated in Hospital, and 48 deaths resulted from this cause.

(c) Tetanus.

36. This troublesome scourge remains a source of concern, particularly in Bathurst, and not infrequently in infants a few days old. This year twenty cases were reported with twelve deaths.

(iv) Helminthic Infections.

37. The incidence remains high, the prevalence being in the following order:— Ascariasis, Ankylostomiasis, Schistosomiasis. Manifestly major improvement of the position must await widespread education and co-operation.

B. GENERAL MEASURES.*(a) Sewage Disposal.*

38. Nearly all nightsoil is disposed of by bucket and subsequent composting, but the resulting material finds little demand in the urban area of Bathurst, while transport costs to adjacent agricultural areas are too high to be an economic proposition. In consequence much compost had to be used as bottom layers in reclamation work. The future sewage disposal system of Bathurst remains under consideration.

(b) Refuse Disposal.

39. Ordinary refuse, supplemented by groundnut shell as it becomes available has been utilised for reclamation work, unlimited opportunities for which present themselves.

C. SCHOOL HYGIENE.

40. One school (318 scholars) was examined. It was subsequently realised that with existing staff it was impracticable to attempt to examine all

scholars every year, a system apparently aimed at previously. Instead it has been decided to institute a method whereby all scholars will be examined three times in their school career: on entry, at a midway point, and on leaving school. Defectives will be closely followed up, and teachers will be encouraged to report illnesses or abnormalities noted.

D. LABOUR CONDITIONS.

41. There is little to report. Wages were good and a cost-of-living bonus scheme remained in operation. Food was plentiful.

E. FOOD IN RELATION TO HEALTH AND DISEASE.

42. At the beginning of the year school meals were served at a small charge to most schools, but later this was reduced to the supply of fifty free meals daily to the neediest children of the Mohammedan school. As elsewhere the fashion of bandying about the large word "malnutrition" has been experienced, often with little knowledge or differentiation from "hunger". Even observers who might be expected to be qualified to give an informed opinion are by no means unanimous on the situation. Certainly from 1941 to 1943 many foods were in short supply but since then there has been a steady improvement and at present the food supply is adequate. This may account for the varying results obtained by different observers when reporting "malnutrition". Until now Bathurst only has received clinical attention. It will surprise no one if a lack of vitamin B and possibly C is confirmed, particularly in the Protectorate, and if there is an over-all shortage of protein containing the essential amino-acids.

43. Meantime a Nutrition Assistant has been appointed, and is due to arrive in April 1945 to commence certain preliminary investigations before the arrival of Dr. Platt, the Colonial Office Specialist in Nutrition who is due to visit the Colony later in the year to advise on the problem generally. Pending his report the work of the Nutrition Committee will remain in abeyance.

F. PORT HEALTH WORK AND ADMINISTRATION.

44. The Royal Air Force has continued to exercise health control over land and sea aeroplane bases.

45. All ships entering the port were boarded.

Number of rats and mice caught in Bathurst	...	...	9,067
Number of rats examined for plague	...	...	6,791
Number of cases of plague infection found	...	...	Nil

C. MATERNITY AND CHILD WELFARE.

46. The Maternity Hospital and the Ante-natal and Welfare Clinics continued to function well.

Maternity and Child Welfare in Bathurst and the Protectorate.

(a) Bathurst.					1943.	1944.
Infant Welfare Attendances	...	...	...	...	9,100	5,857
Ante-natal Attendances	...	...	...	...	2,356	2,231
Deliveries	...	...	...	...	372	236
(b) Bakau, Sukuta and Brikama.						
Infant Welfare Attendances	...	...	...	...	10,151	9,205
Ante-natal Attendances	...	...	...	...	635	837
Deliveries	...	...	...	...	50	110
(c) Basse Health Centre.						
Infant Welfare Attendances	...	...	...	...	2,280	2,462
Ante-natal Attendances	...	...	...	...	243	355
Deliveries	...	...	...	...	Nil	68

The apparent decrease of Infant Welfare attendances is due, not to lessening work, but to a more accurate method of computation.

EUROPEANS.

AFRICANS.

DISEASES BY SECTIONS				In-patients treated during year.	Deaths in in-patients.	Outpatients treated during year.	Deaths in outpatients.	Inpatients treated during year.	Deaths in Inpatients.	Outpatients treated during year.	Deaths in Outpatients
I.	Infectious and Parasitic Diseases	28	70	—	—	420	59	7,957	—		
II.	Cancer and other Tumours	2	4	—	—	24	4	30	—		
III.	Rheumatism, diseases of Nutrition and Endocrine Glands	1	5	—	—	36	1	1,633	—		
IV.	Diseases of the Blood and Blood-forming Organs	3	3	—	—	14	1	281	—		
V.	Chronic Poisoning (including Acute Alcoholism)	0	1	—	—	8	1	—	—		
VI.	Diseases of the Nervous System and Sense Organs	6	59	—	—	44	9	748	—		
VII.	Diseases of the Circulatory System	2	19	—	1	44	7	251	—		
VIII.	Diseases of the Respiratory System	2	53	—	—	220	48	5,097	—		
IX.	Diseases of the Digestive System	16	70	—	—	239	9	9,007	—		
X.	Non-Veneral diseases of the Genito-urinary System and Annexa	3	11	—	—	118	5	1,005	—		
XI.	Diseases of Pregnancy, Child-birth, and the Puerperal state	6	5	—	—	376	10	64	—		
XII.	Diseases of the Skin and Cellular tissues	8	87	—	—	209	16	7,274	—		
XIII.	Diseases of the Bones and Organs of Loconction	2	17	—	—	16	1	423	—		
XIV.	Congenital Malformations	0	0	—	—	2	0	1	—		
XV.	Diseases of Early Infancy	0	3	—	1	3	0	6	—		
XVI.	Old Age	0	0	—	—	1	0	60	—		
XVII.	Affections due to Violence	6	30	—	—	107	5	2,930	—		
XVIII.	Ill-defined Diseases	1	52	—	—	28	2	68	—		
Total		86	507	—	2	1,909	178	36,835	—		

APPENDIX B.

Return of Laboratory examinations:—

Urines	...	...	...	...	...	...	...	1,197
C. S. F.'s	...	...	...	...	...	...	...	6
Fæces		...	...	...	...	...	...	392
Bloods	...	...	...	...	...	...	...	1,842
Gland Punctures	...	...	...	...	...	...	...	405
Sputa	...	...	...	...	...	...	...	309
Sera	...	...	...	...	...	...	...	331
Urethral Smears	...	...	...	...	...	...	...	83
Vaginal Smears	...	...	...	...	...	...	...	33
Nasal Smears	...	...	...	...	...	...	...	66
Conjunctival Smears		...	...	...	...	...	...	9
Total Examinations			...	...	...	...	...	4,673

